

2. On a Gigantic Sea-Perch, *Stereolepis gigas*.

By G. A. BOULENGER, F.R.S.

[Received September 30, 1897.]

(Plate LII.)

Since the publication of the first volume of the new Catalogue of Fishes, the Trustees of the British Museum have acquired, through the kind mediation of Prof. C. H. Gilbert, two specimens of the little-known *Stereolepis gigas*, Ayres, from the coast of California. I am thus enabled to supplement our knowledge of this fish, especially with regard to the skeleton, of which nothing was known beyond the statement, by Hilgendorf, that Japanese specimens (*Megaperca ischinagi*, Hilg.) have 12+14 vertebræ.

The conclusion arrived at from a comparison of the descriptions, that *Megaperca ischinagi* is specifically identical with *Stereolepis gigas*, is confirmed by the study I have made of these specimens and their comparison with a photograph of the type of the former species, preserved in the Berlin Museum, for which I am indebted to the kindness of Prof. Hilgendorf. I must particularly insist on this point, since my identification has not been accepted by Jordan and Evermann, who in their 'Fishes of America' published 1896, agree with me only in so far as the generic identity goes, remarking that "Mr. Boulenger is probably in error in placing this Japanese species [*Megaperca ischinagi*] in the synonymy of *Stereolepis gigas*." These authors, however, do not seem to have examined many Californian specimens, nor to be aware of the range of their variations, since they ascribe to them "ventrals long, reaching vent," whereas the large specimen before me has these fins rather short and widely separated from the vent, just as in the Japanese specimen in the Berlin Museum.

I will first proceed with a short description of the external characters from the larger Californian specimen, 1.4 metres long, and add a few notes taken from the photograph of the nearly equally large (over one metre) Japanese specimen. The account of the skeleton which follows is drawn up from a specimen 9 decim. long, with the vertebral column somewhat malformed in its caudal portion.

Depth of body nearly equal to length of head, $3\frac{1}{4}$ times in total length. Crown flat; snout convex, $2\frac{1}{2}$ diameter of eye, which is 7 times in length of head and $2\frac{1}{2}$ in interorbital width; lower jaw projecting; maxillary extending to below centre of eye, the width of its distal extremity nearly equalling diameter of eye. Greater part of head scaly; maxillary naked; præopercle finely serrated; no opercular spines, they becoming worn and blunt with increasing age. Gill-rakers strong, longest as long as gill-fringes, 8 on lower part of anterior arch. Dorsal XI 9; originating immediately behind vertical of axilla; spinous and soft portions confluent but deeply notched, the former twice as long and only half as deep as the latter; 5th-7th spines subequal, longest, $\frac{1}{4}$ length of head. Pectoral asymmetrical, rounded, with

20 rays, $\frac{1}{2}$ length of head. Ventral slightly shorter than pectoral, measuring $\frac{1}{3}$ the distance between its base and the origin of the anal. Latter short, III 8, originating below middle of soft dorsal; spines adnate, very indistinct. Caudal feebly notched, middle rays $\frac{2}{3}$ length of outer. All the soft fins covered with very minute scales. Caudal peduncle $1\frac{1}{4}$ as long as deep. Scales rough, $115\frac{15}{40}$; lat. l. 80. Uniform blackish brown.

A comparison of these notes with Hilgendorf's description shows agreement on all points save the number of soft dorsal rays, which is ascribable to mere individual variation, since other Californian specimens have 10 rays just as in the Japanese. The resemblance with the photograph further confirms the probable identity; the curious shape of the head, the proportions of the body and fins, even the slightly emarginate caudal and the indistinctness of the anal spines are the same in both, as any ichthyologist may convince himself on inspection of the plate appended to this paper. The scales are a little larger in the Japanese specimen, but this difference appears to me to be within the limits of individual variation, as ascertained in the gigantic Perches of the genera *Polyprion* and *Epinephalus*. The stronger angles of the caudal in the Californian specimen do not seem to afford a reliable character since Jordan and Evermann describe the fin as "nearly truncate."

Skull very similar to that of *Polyprion*, to which genus *Stereolepis* is nearer allied than to any other. Ascending processes of præmaxillaries short, not extending to the frontals, which are large, broad, rugose but without crests; parietal and supraoccipital bones not extending forwards to between postfrontal processes; supraoccipital crest low; second suborbital bone developing a subocular lamina which is longer than broad and rounded behind; supplemental maxillary bone well developed, half the length and one-third the width of the maxillary. Jaws, vomer, and palatines with villose bands of minute sharp teeth.

Vertebræ 12+14. First and second with slender epipleurals attached to the neural arch; third, fourth, and fifth with strong sessile ribs with epipleurals attached at a considerable distance from their base; from the sixth vertebra, the ribs are borne by parapophyses which gradually increase in length; the last three præcaudal parapophyses connected ventrally by a bridge; the last two epipleurals attached to the parapophyses of the eighth and ninth vertebra. Ribs much dilated, especially the last three, with broad inner crest. First interhæmal suspended from the first caudal vertebra.

The vertebral formula, as tabulated on p. 115 of the 'Catalogue of Fishes,' is as follows:—

A.	B.	C.	D.	E.	F.	G.	H.
26	12	2	4	0	6	3	14

Two specimens are represented in the drawing now exhibited (Plate LII.), the upper figure being taken from the stuffed Californian specimen described above, the lower from a photograph of the type of *Megaperca ischinagi*, from Japan, preserved in the Berlin Museum.